PhD Nataša Sturza - Milić

Preschool Teacher Training College "Mihailo Palov" Vrsac, Srbija PhD Tanja Nedimović

Preschool Teacher Training College "Mihailo Palov" Vrsac, Srbija

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EVALUATION BY RELEVANT ADULTS ON THE TIME OF CHILDREN'S INCLUSION INTO SPORTS – RECOMMENDATIONS AND WARNINGS

Resume: Many social and cultural activities, including sport activities and physical activities of children, are under the influence of dominant codex and beliefs. A global trend is present for children to intensively train and compete at an increasingly younger age, before they are, in every way, ready. The main goal of the paper was to explore the sensitive question of the influence of dominant practice on the inclusion of children into sport. The evaluations of sports trainers (N= 33) were tested, regarding the time for including children into various sport disciplines, i.e. the relation between descriptive and prescriptive (how it is in reality, and how it should be according to experts). In the paper the method of systematic non-experimental observation was used, and the instrument was a specially constructed questionnaire. Through the application of Mann Witney U test it was determined that there exists a statistically significant difference (Z = -2,823; p = 0,003) between RGODS variable – the real age of children's inclusion to certain sport disciplines (Mean = 8,1 godina) and OGODS - optimal age of children's inclusion into certain sport disciplines (Mean = 10,9 godina). In the context of the gathered results, the authors indicate a possibility and obligation to change the collective and globally imposed belief in adults with the goal supporting the complete development of children and their healthy affirmation into sports.

Key words: children's sport, early specialization.

Introduction

The development of sport is closely connected to the process of accelerated globalization (Jurak i sar., 2013; Jurak i sar., 2014; Macura i sar., 2014). In the world and in our society there is a trend of identifying motorically gifted children, who will train intensively and compete at an early age, even before they are physically, emotionally and intellectually ready for that (Baić i sar., 2014; Malina, 2010; Sturza Milić, 2009, 2011; Sturza Milić i Nedimović, 2015; Vaeyens i sar., 2009). Although it is well known that various components of sport, various games and numerous sport disciplines significantly contribute to the vitality and life quality of the population and as such have important social support, the fact should be accepted that different changes in social development and contemporary way of life influenced sport to acquire a different dimension, i.e. it is slowly becoming "more than just a game and competition". Sport reflects the society in which it is expressed, and still presents just a part of the picture of one society and its moral (Božović, 2007; Macura i sar., 2014). Many sports programs, and especially those directed towards children, depend on global social and economic development, this is why it is important to understand and determine what its perspectives and real goals are. Under the influence of globalization, in many countries there

is a deviation from postulates and principles of educational institutions that sport should exist in school systems, primarily, because of its educational value. It is obvious there is a threat that a system will develop which is oriented towards performances and competitions, which produce elite or professional athletes. The start of "professionalization" of sport in schools at an increasingly early age - early specialization, is becoming present under the influence of media, corporations and political interests, and is reflected in the use of elite spot as tool for national promotion in the global economy. Cultural factors also influence sport politics, therefore in many countries the imposed competition structure can explain the presence of specialization at an early age (Leite i sar., 2013). Unfortunately, sport today has become one of the most profitable jobs, which at the highest level imposes new and increasingly more challenging physical and psychological pressures. This influences, not only on the successfulness of children and young athletes, but also on their future as human beings. Hence, we are becoming witnesses of the appearance of various forms of sport dehumanization: early inclusion of children in sport, premature specialization of motorically gifted children, excessive training and usage of doping, abuse of children through sport, media manipulation etc. (Baker i sar., 2003; Moesch i sar., 2011). Because of the abovementioned reasons, child sport has become the subject of many scientific studies and international declarations which have led to new warnings and implementation of various precautionary measures, but also law measures for the protection of certain categories of individuals, especially, children (Bačanac, 2011; Baker i sar., 2009; Bodin i sar., 2007; Firika i Sturza Milić, 2005; Ryan, 1995; Sturza Milić, 2012b).

Risk of early inclusion in sport for children

Demands which have recently been placed on trainers by the enormous progression of sport achievements, has led to (to various degrees) purposeful deviation from the basic principles of long term sport development of an individual. The increasing level of sports achievements and an increasing pressure to achieve elite level as soon as possible, have led to a situation which has been giving very negative effects in sport for years (Idrizović i Jukić, 2006; Klomsten i sar., 2004). Contemporary, professional sport can barely exist without the constant struggle for records, success and prestige, and without the usage of various prohibited methods in the wish to reach the goal as soon as possible (Mandarić i Delibašić, 2014). Sport is becoming hard work which lacks spontaneous play, space in which stamina, strength and power possess enthusiasm, joy, playful imagination and feeling (Božović, 2007). The thought of dehumanization and the post-humanitarian era in sport (unfortunately also in child sport) does not seem so unrealistic any more, on the contrary it is becoming the scenario which is being realized in our area. Early specialization is a concept which represents introduction of children and adolescents into a training process, with the intent to bring psychophysical abilities to the maximal working level, and all with the goal to achieve the highest sport achievements (Jayanthi i sar., 2013; Wojtys, 2013). The main (unjustified) reason for the affirmation of such a view on sport development (application of early specialization), are present with an intent to receive the maximum qualities in a certain performance of a certain sport activity from an individual in the shortest amount of time. Results of early specialization are reflected in the fact that children and young athletes become extremely narrowly specialized, while their general qualities are neglected to the extent where the specific quality also starts to suffer. We should not skip the fact that early specialization often brings with it suppression, and even absence of general preparation content for young athletes. Because of this many researchers highlight that the process of long term sport career development must contain key forms of training, which need to be adapted for the optimal developmental

characteristics of a young athlete (Ford i sar., 2011; Jayanthi i sar., 2013). Expert opinion is that for most sports intensive training exclusively in one sport (early specialization) should be delayed until the end of adolescence (McLeod i sar., 2011; Wall i Cote, 2007). From everything previously stated, it can be concluded that the way in which adults organize child sport, is not always adequate for children. Child sport is viewed and organized as a miniature version of sport for adults (Firika i Sturza Milić, 2005; Bačanac, 2011; Sturza Milić, 2009, 2011, 2012a). Children are expected to learn and specialize in certain sport disciplines significantly earlier than they form the optimal anatomy-morphological and psycho-physical characteristics needed for their safe usage (FirikaiSturza-Milić, 2005; Idrizović i Jukić, 2006; Sturza Milić i Nedimović, 2014). Research results (Baker i sar., 2009; Jonker i sar., 2009, Sturza Milić, 2009), indicate that early inclusion in sport is a problem (early specialization), which has been culminating in the previous few years. They also indicate that syndrome of child abuse has taken a new form, abuse through sport, which has support in society (Ryan, 1995; Bodin i sar., 2007). Children should not be included in early specialization, because research has not concisely confirmed that early intensive training is of key importance for reaching elite levels in sports disciplines, however there are a many risks for the children (Jonker i sar., 2009; Malina, 2010; Moesch i sar., 2011). On the other hand, children and the young should be encouraged to participate in various sports (sport diversification), so that they could develop a wide array of motoric abilities, but also because early specialization leads to children being deprived of a wide base of activities (Baker i sar., 2009; Cote i sar., 2009; Leite i sar., 2013; Sturza Milić, 2012a, 2014; Wojtys, 2013) and have a problem of free-time shortage (Mijatović, 2014).Children who, from an early age, spend a lot of time in one sport, have a high risk of "burnout", physically and emotionally. It is very likely that they lack life experience which they need to grow up into emotionally healthy adults. Authors highlight that complete focusing on any area of human endeavor is not always good for the child. The dreams of parents and trainers have their price. To become a champion, can demand more than 10 years of intensive preparation and sacrifices (Baxter-Jones i Helms, 1996; Ericsson i sar., 1993), and not even then is success guaranteed. Although certain actions and methods in certain sports at an early age present a form of child abuse (Ford i sar., 2009; Nedimović, 2011), many parents and trainers still believe that early specialization is the only key for high performance and success in sport. Hence, they should be educated in the direction of other perspectives when it comes to children (Mandić, 2012; Panić i Opsenica Kostić, 2014). Furthermore, we are frequently confronted with the phenomenon of disharmony between the descriptive and prescriptive (how it is in reality, and how it should be according to experts). Because the problem of early inclusion of children into sport is insufficiently researched in our country together with the influence that early specialization can have on the development of children and child sport, the goal of this paper was to determine to what extent trainers assess whether children are being included in certain sports activities too early (volleyball, basketball, tennis, handball, football, martial arts, dance etc.) i.e., to test the assessment of sport trainers about the real and optimal time for inclusion of children into the listed sport disciplines.

Method

The research is based on the method of systematic non-experimental observation.

Sample and procedure

The sample on which the research was conducted consisted of 33 questioned trainers of various sports disciplines.

The research was conducted with trainers who work (or in their sport carrier had worked) for different sports clubs in Serbia. Most of the questioned trainers were from sport clubs in Vrsac

which compete on different levels of local and international competitions, but in the research also participated trainers from sport clubs in Belgrade, trainers of the representation of Serbia in different sport disciplines (female tennis representation, volleyball, basketball, taekwondo, etc.). All questioned trainers from the sample are involved (or have been involved in for a longer time period) in work with younger categories of athletes and achieve (or had achieved) considerable, and among them the highest results.

Instruments and variables

In order to question the sport trainers regarding the optimal and real time of inclusion of children into certain sport disciplines, a questionnaire was used which was constructed for the needs of an extensive research as a part of the project "Gifted child and parents, teachers and other adults", which has been conducted by the Preschool teacher Training College "MihailoPalov" in Vrsac, Teacher Training Faculty in Belgrade, Department for Pedagogy from the Faculty of Philosophy in Novi Sad and University "Tibiscus" from Timisoara. The questionnaire was anonymous, it consisted of a direct introductory address and 20 questions, from which 7 questions were open type. The questionnaire was meant to study the assessments of the relevant adults (parents, preschool teachers, teachers, trainers) about gifted and talented children and their adequate education. For the needs of the research presented in this paper, questions which refer to the assessments by trainers regarding the participation and advancement of children in sport activities (time of inclusion into the sport, advancement, achievements) were used.

Variables relevant for this research are the following:

- Variable RGOD realistic age of children's inclusion into the following sport disciplines: volleyball, basketball, football, martial arts, handball, table tennis, tennis, ballet and dance;
- Variable OGOD optimal age of children's inclusion into the following sport disciplines: volleyball, basketball, football, martial arts, handball, table tennis, tennis, ballet and dance;

In order to determine whether there is a difference between real and optimal age of children's inclusion into sport activities in general, the average value of real (RGODPR) and optimal age (OGODPR) were calculated for all studied sports.

Hypothesis

There does not exist a difference in the trainers' assessment between the time when children should be included into various sport activities and the real time when they are included into the same sport disciplines.

Processing and analysis of the gathered data

All of the gathered data was processed in statistical programs Statistica and SPSS. Data processing entailed the calculation of the basic descriptive parameters (average value, standard deviation) and the application of a non-parameter procedure Mann Witney U test (for the study of differences between the listed variables).

Results

In Table no.1 the middle values for the variable RGOD (real age of children's inclusion into different sport disciplines) and variable OGO D (optimal age of children's inclusion into

different sport disciplines). Data has been gathered for 8 different sport disciplines (volleyball,

basketball, football, martial arts, handball, table tennis, tennis, ballet and dance).

Table 1. Middle value for the real age for children's inclusion (RGOD) and the optimal

age for children's inclusion (OGOD) in certain sport disciplines							
Ordinal number	RGOD	OGOD	Sport discipline				
	(middle value)	(middle value)					
	(**************************************	()					
1.	8,8	11,6	Volleyball				
2.	8,2	10,8	Basketball				
3.	7,0	8,7	Football				
4.	7,2	9,2	Martial arts				
5.	8,5	11	Handball				
6.	6. 7,5		Table tennis				
7.	7. 6,25		Tennis				
8.	8. 5,33		Ballet and dance				

On the basis of the reached results for variables RGOD and OGOD presented in Table 1, the average value of real (RGODPR) and optimal age (OGODPR) of children's inclusion for all tested sports. The reached average value for the variable RGODPR is 8.1 years, while for the variable OGODPR the value is 10.5 years.

Table 2 presents results (middle value, standard deviation, Z value and level of significance) which were reached after the application of non-parameter procedure Mann Witney U test, for the variables RGODPR – the average real age of children's inclusion into different sport disciplines and OGODPR - the average optimal age of children's inclusion into different sport disciplines. A statistically significant difference between the middle values for variables RGODPR (Z = -2,823 at the level of significance D = 0,003) i OGODPR (D = -2,455 at the level of significance D = 0,003) was determined.

Table 2. Significance of the difference between the middle values for variables RGODPR (the average real age of children's inclusion into sport) and OGODPR (the average optimal age of children's inclusion into sport)

		Middle value		
VARIJABLE	N		Z	р
		(years) ± Std		·
			-2,455	0,003
RGODPR	33	8,195 ± 1.656		
•				
OGODPR	33	10,505 ± 1.212	-2,823	0.003

Std – standard deviation Z – z value p – level of significance

Discussion

The occurrence of dehumanization of children in sport is expressed in different ways, such as early inclusion of children in sport, early specialization of motorically gifted children, excessive training and usage of doping, child abuse through sport, media manipulation etc. Many researchers share the opinion that the trend of early specialization, i.e. early inclusion of children into training and competition process for which they are not mature enough, nor in the correct way prepared, is becoming ever more present (Bačanac, 2011; Baić i sar., 2014; Baker i sar., 2009; Bodin i sar., 2007; Firika i Sturza Milić, 2005; Malina, 2010). The results of this research show that according to the assessment of questioned trainers children are included

in sports disciplines earlier than the optimal recommendation (the optimal age of inclusion for specific sport disciplines). Namely, in our research, the reached average value of the time when children are really included into various sport disciplines is 8.1 years (on the basis of the trainers', who had been working with children in different sport clubs, experience), while, in the opinion of the questioned trainers, the optimal average value when children should be included in sport is 10.5 years. On the basis of this data, we can conclude that on average children are included in different sport disciplines 2.4 years too early (in the analysis of the middle values of the analyzed variables RGODPR and OGODPR it was noticed that a statistically significant difference exists between them (Z = -2,823; p = 0,003). Other researchers have reached similar results (Baker i sar., 2009; Cote i sar., 2009; Leite i sar., 2013; Sturza Milić, 2014; Wojtys, 2013). Through a more precise analysis, it can be noticed that children start ballet and dance the earliest (on average from 5.3 years), tennis (on average 6 years), football (on average 7 years), martial arts (on average 7.2 years) and in table tennis (on average with 7.5 years). The reached average value of time when it is optimal for children to be included into the same sport disciplines, in the trainers' assessment, is 10.5 years (volleyball - 11.6 years, handball - 11 years, basketball - 10.8 years, martial arts - 9.2 years, football - 8.7 years, table tennis – 8.5 years, ballet and dance – 8 years and tennis – 7.7 years). The reached values correspond with the opinions of authors who deal with the phenomenon of early specialization (Baić i sar., 2014; Kolarov, 2007; Malina, 2010; Martens, 1988, prema, Bačanac, 2011; Ugarković, 2011). Based on everything presented so far, it can be concluded that the posed hypothesis, which states, that there is no difference between the trainers' assessment of when children should be included into various sport disciplines and that the actual time of children's inclusion in those same sport disciplines, was rejected in this research. The reached results impose the following questions: is the influence of the global trend to include children into sport as early as possible in order to achieve success present in our country and what influenced the trainers to lean towards the trend of early specialization in their training process, in spite of the fact that their assessment of when children should be included in sport disciplines is significantly later? The solution to the posed dilemma should perhaps be sought, among other places, in the close connection between the educational and sport systems, especially at the younger age (Cote i sar., 2009; Sturza Milić, 2009; Sturza Milić i Nedimović, 2014). Quality educational work can offer a new approach to the to the future of child sport which consists of the imparting knowledge and values, a future in which competition will not raise a question of premature inclusion of children into sport (early specialization) and the disrespect of child abilities and health. Whether we will use the educational potential of child sport for the purpose of the positive influence on the conscious development and formation of children and young individuals' character depends on how it is led by adults, which goals they prioritize, whether they recognize a powerful teaching character in it, or, consider winning and results as the only measures of its success (Bačanac, 2011). In other words, experts and science workers should invest their effort so that the problems of child sport is covered by various disciplines, together with the problem of early specialization. Through such a theoretical approach, from which practice would immerge, we would avoid the situation in which in the area of work with children harm is brought firstly to children, and secondly the development of child sport.

Conclusion

The main goal of this paper was to explore the sensitive question of the trainers' assessment regarding the inclusion of children into various sport disciplines (early specialization). In the context of the gathered results which indicate the occurrence of early inclusion of children

into sports in comparison to the recommended time, the authors suggest a need for change and reassessment of the dominant practice in adults (mainly trainers, but also parents, preschool teachers, teachers and others) in order to give support to the complete development of a child and its healthy affirmation in physical education and sport. This research gives trainers and other relevant adults information about the problems of early specialization and the optimal time for child inclusion into various sport disciplines. In accordance with the reached results, a need arises for the implementation of larger, interdisciplinary research which would deal with the problem of early specialization and inclusion of children into sport.

Bibliography

- Bačanac, Lj. (2011). Psihološko pedagoški aspekti rada sa decom u sportu. U B. Jevtić, J. Radojević, I. Juhas i R. Ropret (ured.), Dečiji sport od prakse do akademske oblasti (str. 121-153). Beograd: Fakultet sporta i fizičkog vaspitanja.
- Baić, M., Karninčić, H., Šprem, D. (2014). Beginning age, wrestling experience and wrestling peak performance – trends in period 2002-2012. Kinesiology, 46, 94-100.
- Baker, J., Cobley, S. & Fraser-Thomas J. (2009). What do we know about early specialization? Not much! High Ability Studies, 20, 77-89.
- Baker, J., Horton S., Robertson-Wilson J. & Wall, M. (2003). Nurturing sport expertise: Factors influencing the development of elite athlete. *Journal of Sports Science and Medicine*, 2, 1-9.
- Baxter-Jones, A.D.G. & Helms. P.J. (1996). Effects of training at a young age: A review of the Training
 of Young Athletes (TOYA) Study. Pediatric Exercise Science, 8, 310-327.
- Božović, R. B. (2007). Agresija i nasilje u sportu. Sociološka luča, 1(2), 100-112.
- Cote, J., Lidor, R. & Hackfort D. (2009). ISSP Position Stand: To sample or to specialize? Seven Postulates about youth sport activities that lead to continued participation and elite performance. International Journal of Sport & Exercise Psychology, 7(1), 7-17.
- Dominik, B., Robene, L. & Heas, S. (2007). Sport i nasilje u Evropi. Zagreb: Knjiga trgovina.
- Ericsson, K. A., Krampe, R. T. & Tesch-Römer, C. (1993). The role of deliberate practice in the acquisition of expert performance. *Psychological Review*, 100(3), 363-406.
- Firika, Ž., Sturza-Milić, N. (2005). Globalizacija i sport Efekti globalizacije svetskih društvenih odnosa i proizvodnja dobara u mas-medijima i sportu. Vršac: Viša škola za obrazovanje vaspitača.
- Ford, P. R., Ward, P., Hodges, N. J. & Williams, A. M. (2009). The role of deliberate practice and play in career progression in sport: The early engagement hypothesis. *High Ability Studies*, 20(1), 65-75.
- Ford, P., Croix, M. D., Lloyd, R., Meyers, R., Moosavi, M., Oliver, J. & Williams, C. (2011). The Long-TermAthleteDevelopment model: Physiologicalevidence and application. *Journal of Sports Sciences*, 29(4), 389-402.
- Idrizović, K., Jukić, I. (2006). Osnova sportskog razvitka. Sportska medicina, 6(2), 41-46.
- Jayanthi, N., Pinkham, C., Dugas, L., Patrick, B. & Labella, C. (2012). Sports Specialization in Young Athletes: Evidence-Based Recommendations. Sports Health, 5(3), 251-257.
- Jonker, L., Elferink-Gemser, M. T. & Visscher, C. (2009). Talented athletes and academic achievements: A comparison over 14 years. High Ability Studies, 20(1), 55-64.
- Jurak, G., Andreff, W., Popović, S., Jakšić, D. & Bednarik, J. (2013). The impact of the global economic crisis on the finances of non-governmental sport organizations in Slovenia remains to be seen. *Motriz: Revista de Educação Física*, 20(2), 131-142.
- Jurak, G., Popović, S., Jakšić, D., Kolar, E., Andreff, W. & Bednarik, J. (2014). The Impact of the Global Economic Crisis on the Finances in Sport: Case of Slovenia. In D. Milanović, & G. Sporiš (Eds.), Proceedings 7th International Scientific Conference on Kinesiology "Fundamental and Applied Kinesiology – Steps Forward", Full Papers, May 22-25, 2014, Opatija, Croatia (pp. 440-445). Zagreb: Faculty of Kinesiology.
- Klomsten, A. T., Skaalvik, E. M. & Espnes, G. A. (2004). Physical Self-Concept and Sports: Do Gender Differences Still Exist? Sex Roles, 50(1/2), 119-127.

- Kolarov, N. (2007). Dete i sport. Sportska medicina, 5(1), 22-26.
- Leite, N.M.C., Santos, S., Sampaio, J. & Gomez, M. (2013). The Path to expertise in Portuguese and USA Basketball Players. *Kinesiology* 45(2), 194-202.
- Macura, D., Toni, M. & Doupona Topič, M. (2014). The moral potential of sport values. In D. Milanović
 & G. Sporiš (Eds.), Fundamental and Applied Kinesiology Steps Forward, (pp. 572-573). Zagreb: Faculty of Kinesiology.
- Malina, R. M. (2010). Early Sport Specialization. Current Sports Medicine Reports, 9(6), 364-371.
- Mandarić, S., Delibašić, V. (2014). Sankcionisanjedopinga u sportu. Fizičkakultura, 68(1), 39-49.
- Mandić, N. (2012). Family role in the development of Children's independence. Research in Pedagogy, Vol. 2(2), 109-129.
- Mcleod, T. C., Decoster, L. C., Loud, K. J., Micheli, L. J., Parker, J. T., Sandrey, M. A., & White, C. (2011).
 National Athletic Trainers' Association Position Statement: Prevention of Pediatric Overuse Injuries.
 Journal of Athletic Training, 46(2),206-220.
- Mijatović, M. (2014). Possibile ways to organize free time of the Young. Research in Pedagogy, 4(2), 36-46.
- Moesch, K., Elbe, A., Hauge, M. T., & Wikman, J. M. (2011). Late specialization: The key to success in centimeters, grams, or seconds (cgs) sports. Scandinavian Journal of Medicine & Science in Sports, 21(6),282-290.
- Nedimović, T. (2011). Frequency and forms of Peer violence in Primary School. Research in Pedagogy, 1(1), 126-144.
- Nedimović, T., Sturza Milić, N. (2015). Are motor gifted children more intelligent? Moving up Physical Education and Sports Participation on the Public Health Agenda It Is Not Too Late to Act! (pp. 405-406). Madrid: Universidad Europea.
- Panić, T., Opsenica Kostić, J. (2014). Child well-being from the perspective of Parents. Research in Pedagogy, 4(1), 119-127.
- Ryan, J. (1995). Little girls in pretty boxes: The making and breaking of elitegymnasts and figure skaters. New York: Doubleday.
- Sturza Milić, N. (2014). The influence of Motor Expirience on Motor Creativity (Fluency) of Preschool Children. Kineziologija,46(1), 82-87.
- Sturza Milić, N., Nedimović, T. (2014). Uloga metodike fizičkog vaspitanja i psihološke grupe predmeta u podizanju svesti studenata budućih vaspitača o značaju fizičke aktivnosti. U D. Mitić (ured.), Efekti primene fizičke aktivnosti na antropološki status dece, omladine i odraslih, (str. 24-35). Beograd: Fakultet sporta i fizičkog vaspitanja.
- Sturza-Milić, N. (2009). Identifikacija motorički darovitih učenika mlađeg školskog uzrasta. Vršac: Visoka škola strukovnih studija za obrazovanje vaspitača "Mihailo Palov".
- Sturza-Milić, N. (2011). Manipulacija motorički darovitom decom jedan oblik dehumanizacije sporta. U G. Gojkov, A. Stojanović (ured.), *Darovitost i moralnost* (str.233-245). Vršac: Visoka škola strukovnih studija za vaspitače "Mihailo Palov".
- Sturza-Milić, N. (2012a). Uticaj dominantnog društvenog razmišljanja na vreme uključivanja dece u
 sport i ranu specijalizaciju. U G. Gojkov, A. Stojanović (ured.), Daroviti u procesu globalizacije, (str. 613629). Vršac: Visoka škola strukovnih studija za obrazovanje vaspitača "Mihailo Palov".
- Sturza Milić, N. (2012b). Motor Knowledge accumulation and Motor Creativity manifestation. Research in Pedagogy, 2(2), 54-64.
- Ugarković, D. (2011). Biološke osnove dečijeg sporta. U B. Jevtić, J. Radojević, I. Juhas i R. Ropret, (ured.), Dečiji sport od prakse do akademske oblasti. (str.109-121). Beograd: Fakultet sporta i fizičkog vaspitanja.
- Vaeyens, R., Güllich, A., Warr, C. R. & Philippaerts, R. (2009). Talent identification and promotion programmes of Olympic athletes. *Journal of Sports Sciences*, 27(13), 1367-1380
- Wall, M. & Côté, J. (2007). Developmental activities that lead to dropout and investment in sport. Physical Education & Sport Pedagogy, 12(1), 77-87.
- Wojtys, E. M. (2013). Sports Specialization vs Diversification. Sports Health: A Multidisciplinary Approach, 5(3), 212-213.

Biographical note

Natasa Sturza Milic has graduated from the Faculty of Sports and Physical Education in Belgrade where she also obtained her master and doctoral degree. She is employed at the Preschool Teacher Training College "Mihailo Palov" in Vrsac as a Professor of professional studies for the subjects Teaching Methodology of Preschool Children Physical Education and Applied Physical Education which are held at both professional bachelor and professional studies. She is a member of the Council of the Preschool Teacher Training College and of the Editing Board of the college publishing activity. She has published 9 books and 40 papers either independently or as a co-author. She has participated in numerous professional and scientific conferences both in the country and abroad, as well as in various project of national and international importance. She is especially interested in the topic of motor giftedness in children.

Tanja Nedimovic has a Ph degree in the field of psychological sciences. She works at the Preschool Teacher Training College "Mihailo Palov" in Vrsac as a senior lecturer of psychological group of courses (*General Psychology, Developmental Psychology, Pedagogic Psychology, Mental Health, and Psychology of Creativity*), She has graduated from the Philosophical Faculty in Novi Sad, Psychology department, where she obtained her Master and PhD degree. Her scientific-research fields of interest are: aggressiveness, peer violence, psychology of creativity.